

**PSG COLLEGE OF ARTS & SCIENCE
(AUTONOMOUS)**

**BSc DEGREE EXAMINATION DECEMBER 2023
(Fourth Semester)**

Branch – **ZOOLOGY**

EVOLUTION

Time: Three Hours

Maximum: 50 Marks

SECTION-A (5 Marks)

Answer **ALL** questions

ALL questions carry **EQUAL** marks (5 x 1 = 5)

- 1 Theory of spontaneous origin was proposed by _____.
(i) Aristotle (ii) Louis Pasteur
(iii) Spallanzani (iv) Francesco Redi
- 2 Germplasm theory against Lamarck's principle was put forward by
(i) Darwin (ii) Lamarck
(iii) Weismann (iv) Hugo de Vries
- 3 The chromosomal basis of sex determination was discovered by which of the following scientist?
(i) Stevens (ii) Grey
(iii) Henking (iv) Wilson
- 4 Species which have diverged after origin from common ancestor giving rise to new species adapted to new habitats and ways of life is called as _____.
(i) Adaptive radiation (ii) Divergent evolution
(iii) Convergent evolution (iv) Mutation
- 5 On the origin of species was written by _____.
(i) Charles Darwin (ii) Ludmila Kuprianova
(iii) Mikhail A. Fedonkin (iv) None of the above

SECTION - B (15 Marks)

Answer **ALL** Questions

ALL Questions Carry **EQUAL** Marks (5 x 3 = 15)

- 6 a. Analyse the Louis Pasteur's experiment for biogenesis.
OR
b. Illustrate with suitable examples of connective links of peripatus and chimaera.
- 7 a. State about the secondary sexual characteristic available in animals.
OR
b. Examine the industrial melanism.
- 8 a. Infer the types of speciation.
OR
b. Determine the quantum speciation.
- 9 a. Compare the marsupials and placental mammals.
OR
b. Write a brief note on parallelism.
- 10 a. List out the characteristic features of Australopithecus.
OR
b. Discuss the feature evolution of man.

Cont...

SECTION -C (30 Marks)

Answer ALL questions

ALL questions carry EQUAL Marks

(5 x 6 = 30)

- 11 a. Illustrate the suitable diagrammatic representation Evolution of aortic arches in birds and mammals.

OR

- b. Explain in detail about biogenesis and express the redi's Experiment.

- 12 a. Explain the origin of new species with suitable examples and explain the criticism of Darwinism.

OR

- b. Illustrate the outline classification of Mesozoic era.

- 13 a. Write a note on mechanism of speciations.

OR

- b. Write a short note on allpatric speciation.

- 14 a. Explain the adaptive radiation in animals.

OR

- b. What are the causes of adaptive radiation and explain adaptive radiation in Darwin features.

- 15 a. Discuss the time of human evolution and explain the evolution of homosapiens.

OR

- b. Distinguish the characters of homo erectus and homo sapiens.

Z-Z-Z

END